Quality Control

			•
NCR:	Yes /	No	WORK ORDER NON-CONFORMAN

DQA:	Date:	ı

NCR:	Yes	/ No				WORK ORDER NON-	CON	FORI	MANCE / UP	DATE			· •
						1					QA Closed:	Date	:
Work Ord	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part						Rework Scrap			Skid-tube Machining	Crosstube Small Fab	┩ .	Water Jet d. Eng. Coor.	Engineering Quality
NCR	No.					Use-as-is Work Order Update	]	Thern	noforming Large Fab	Finishing Composite	Rec/Stoi	re/Packaging Supplier	Other
Root					Descri	ption of work order update	Ini	itial	Ac	tion	Sign &		
Cause		Date	Step	Qty	(	or Non-conformance	Chie	f Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling	Ш		}										
Operator											,		
Material	Ш												
Setup							1						
Other	-												
Process	Н												
Supplier	$\vdash$												
Training Unapproved	H												
Chappioved	11		<u> </u>	<u> </u>	:		AULT	CATE	I GORY	•	<u> </u>	<u> </u>	<u></u>
Landi	ing G	ear				General		<del>•••••</del>				<del>-</del>	
	Й	Bending				Bend	По	rain			Ovalized		Pressure/Forced
	П	Centre No	ot Concer	ntric to (	o/s	BOM/Route	$\square$	lardwa	re		Over/Under	tolerance	Temperature/Cure
	П	Cracks				Broken/Damaged	Ir	nspecti	on Incomplete		Part Incorred	ct 📙	Weld
	П	Crushed/0	Crimped.			Burrs	lr lr	nstruct	ions Incomplete/	Unclear	Part Lost/Mi	issing	Wrong Stock Pulled
		Cuffs				Contamination	$\square$	/lainte	enance		Part Moved		<b>_</b>
	П	Heat Trea	t			Countersink	$\prod_{N}$	/lislabe	led		Positioned V	Vrong	
		Inspection	n Strip in	Tube		Cut Too Short	$\square$	/lisreac	d		Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes		ffset		_	<b>-</b>		
		Torque W	aves in E	xtrusion	, [	Drawing		ot of (	Calibration				
		Turning S	equence			Finish		ot of S	Sequence				
		Wave/Tw	ist in Tub	e		Folio		utside	Dimensions				

Work Orde	k.			*9	250	6*							Page 2
Item ID: Revision ID: Item Name:	647.1910 Clip			Accept	*	N900	<b>040</b>	100	)*	Setup	Start Stop	*N *N	S1*
Start Date: Required Date: Reference:	10/31/12 11/09/12	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*			Cust Item II Customer:	<b>)</b> :						
Approvals:	Process Pla	ın:	Date:	Tooling:		Dat	te:	_		Run	Start	*N	R1*
	QC:		Date:	SPC (Y/N):	:	Da	te:				Stop	*N	R2*
Sequence ID/ Work Center II	<b>)</b>	Operation Description		Set Up/ Run Ho	urs	Tool ID	Tool #	Plan Code	Accept Qty	Re Qt		Reject Number	Insp. Stamp
*130 *130* QC Quality Control		QC8- Inspect parts - seco	ond check	\ 0.00 0.00	<b>A.</b> A	12/12/1	2		4		Ø		0AS 08 28
140	) 	Outsource process-Anod	ize pêr QSI017 4.1.10.1	0.00								. 11 17	سر و امر ا
*140* Outsource4 Outsource process -	Anodize	Memo Issue P/O: _ Black Anod	/	0.00								pt/13	-01-15
				<b>,</b> ;;	٠٠							<u></u>	
*150		Receive & Inspect for Da	umage & Mat'l Certs	0.00							/4	] 3/2/,	13 (4)
Packaging		Memo		0.00						/		///	

Packaging

										DQA:	Date	
NCR:	res / No				WORK ORDER NON-O	O	NFORI	MANCE / UPDATE		QA Closed:	Date	<b>ب</b> :
Work Orde	or:				DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS	
Part N	No				Scrap Machining Smal Use-as-is Thermoforming Finis Work Order Update Large Fab Comp			Machining Small Fab		Prod Rec/Stor	Engineering Quality Other	
Root				Descri	ption of work order update		Initial	Action		Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup AC Other Process Supplier Training Unapproved												
					F.	AUL	T CATE	GORY		····		
Landi	ng Gear				General					<b>-</b>	•	7
	Bending Centre No Cracks Crushed/ Cuffs	Crimped.		O/S	Bend BOM/Route Broken/Damaged Burrs Contamination		1	on Incomplete ions Incomplete/Unclear		Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved	ct	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	Heat Trea	at			Countersink	1	Mislabe	led		Positioned W	Vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order October-31-12 11:0			*92!					Page 3			
Item ID: 64' Revision ID: Item Name: Cli	7.1910 p		Accept	*N900	<u>1040</u>	100	<b>)</b> *	Setup	Start Stop	i VI	S1* S2*
Start Date: 10/ Required Date: 11/ Reference:	Start Qty: 4.00 709/12 Req'd Qty: 4.00			Cust Item Customer:							
	rocess Plan:	Date:	Tooling: SPC (Y/N):		oate:	-		Run	Start Stop	!//	R1* R2*
Sequence ID/ Work Center ID  155  *155* QC Quality Control	Operation Description QC5- Inspect part co	mpleteness to step on W	Set Up/ Run Hours 0.00 AS 0.00 G- E	Tool ID	Tool #	Plan Code	Accep Qty	ot Re Qt		Reject Number	Insp. Stamp
*160 *160* SprayPaint Spray Painting	ĺ	SI005 4.2 AS PER DWG, SEE NO NAL 4860-50 PRIMER					4	<u></u>	<b>Ø</b>		AS 13-3-28
170 *170* QC Quality Control	QC14- Inspect Spray	Paint	0.00 AS	73/04/10			(xu		·		

											DO	QA:	Dat	e:	
NCR:	Yes	/ No				WORK ORDER NON-O	100	NFOR	MANCE / UPI	DATE		_		_	
_										***	QA Clos	ed:	Dat	e:	
Work Ord	or.					DISPOSITION				AGAINST DE	PARTME	NT/	PROCESS		
VVOIR OIG						Rework	1		Skid-tube	Crosstube	1		Water Jet		Engineering
Part !	No.					Scrap	1		Machining	Small Fab	1	Proc	I. Eng. Coor.	ᅥ	Quality
	_					Use-as-is	1	1	noforming	Finishing	₹		e/Packaging	$\neg$	Other
NCR I	Vo.					Work Order Update	1		Large Fab	Composite			Supplier		
											-				
Root						ption of work order update		nitial		tion	Sign 8	1			
Cause		Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Desci	ription	Date	-	Verification	1	QC Inspector
Doc/Data	Ш														
Equip/Tooling	Щ													Ì	
Operator	Ш														
Material	Ш													- 1	
Setup														Ì	
Other	Н													1	
Process	Н						ŀ								
Supplier	Н														
Training .	Н					•	ŀ					j			
Unapproved	<u> </u>		l	L	L		<u> </u>	T CATE			1	1			···
l a a di	6						AUL	ICATE	GONT						
Landi						<b>General</b> Bend		Grain		Γ_	Ovalized	,	ſ	$\neg$	Pressure/Forced
		Bending	t Conce	atria ta :		-	$\vdash$	ł	ra	-	4		tolerance		Temperature/Cure
	$\vdash$	Centre No Cracks	n concer	itric to	U/3  -	BOM/Route Broken/Damaged	-	Hardwa			Part Inco		· · · · · · · · · · · · · · · · · · ·	-	Weld
	1 1	-i dCK5			ı	loroveri) namageu	1	mispect	on Incomplete	1	grantinico	שוופנ	١	- 1	vveiu

Instructions Incomplete/Unclear

Maintenance

Out of Calibration
Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Part Moved

Wrong Stock Pulled

Other

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Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Cuffs

Heat Treat

Burrs

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Work Orde October-31-12	1			*925					Page 4		
Item ID: Revision ID:	647.1910			Accept	*N900	<b>040</b>	100	<b>)*</b> s	•		IS1*
Item Name: Start Date: Required Date: Reference:	Clip 10/31/12 11/09/12	Start Qty: 4.00 Req'd Qty: 4.00	*4' *4'		Cust Item I Customer:	D:					IS2*.
Approvals:	Process P QC:	lan:	Date:	Tooling: SPC (Y/N):		ate:		R	Run Sta St	on	IR1* IR2*
Sequence ID/ Work Center II	D	Operation Description Identify as per dwg & St	ock Location:	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
*180* Packaging Packaging		<b>Memo</b> ***IDENTI	FY AS PER APICAL	0.00 MPP-120 BY STAMPING P#	AND REV***			Yx			B-4-1
<sup>190</sup> *190*		QC21- Final Inspection	- Work Order Release						131	14/100	<b>H</b> .
QC	!	Memo		0.00					' /	1	

Quality Control

13-4-10

		· DO	QA:
NCR:	Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE	

	·				·····		-		QA Closed:	Date	:		
Work Orde	r·				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS			
Part N	o				Rework Scrap Use-as-is	<b>⊣ !</b>	Skid-tube Crosstube Water Jet Engineer  Machining Small Fab Prod. Eng. Coor. Qua  Thermoforming Finishing Rec/Store/Packaging Ot						
NCR N	0				Work Order Update	<u> </u>	Large Fab	Composite	J	Supplier			
Root					ption of work order update	Initial	1	tion	Sign &				
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector		
Doc/Data Equip/Tooling					•								
Operator Material	-												
Setup							]						
Other													
rocess													
Supplier													
Training													
Jnapproved													
					F	<b>AULT CATE</b>	GORY						
Landin	g Gear				General						_		
	Bending				Bend	Grain			Ovalized	`	Pressure/Forced		
L	Centre No	ot Conce	ntric to (	o/s	BOM/Route	Hardwa		-	Over/Under	<b>)</b>	Temperature/Cure		
	Cracks			<u> </u>	Broken/Damaged	<b>—</b>	ion Incomplete		Part Incorre	<u> </u>	Weld		
L	Crushed/	Crimped.			Burrs	<del></del>	ions Incomplete/	'Unclear	Part Lost/Mi	issing	Wrong Stock Pulled		
<u> </u> _	Cuffs			<u> </u>	Contamination	Mainte			Part Moved				
Ĺ	Heat Trea				Countersink	Mislabe			Positioned V		<b>-</b> 7		
-	Inspection	-	Tube	<u> </u>	Cut Too Short	Misread	d		Power Loss/	Surge	Other		
-	Ripples in				Drill Holes	Offset							
	Torque W			` <u> </u>	Drawing	<b>⊢</b>	Calibration						
<u> </u>	Turning S				Finish	<del></del>	Sequence						
	Wave/Tw	rist in Tub	oe -	1	Folio	Outside	Dimensions						

Date:

Page 1

Work Order ID:

92506

Parent Item:

647.1910

Parent Item Name:

Clip

**Start Date:** 10/31/12

Required Date: 11/09/12

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP REV:A NEW ISSUE 12-10-22 JLM VERIFIED:DD

Comments.	HI REVIII REVI	155015 12 10 22 0	DIVI VI							•			
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on · Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
647.1910E		Manufactured	No			44	f	0.0000		0.429473	7		

P 911667

462.

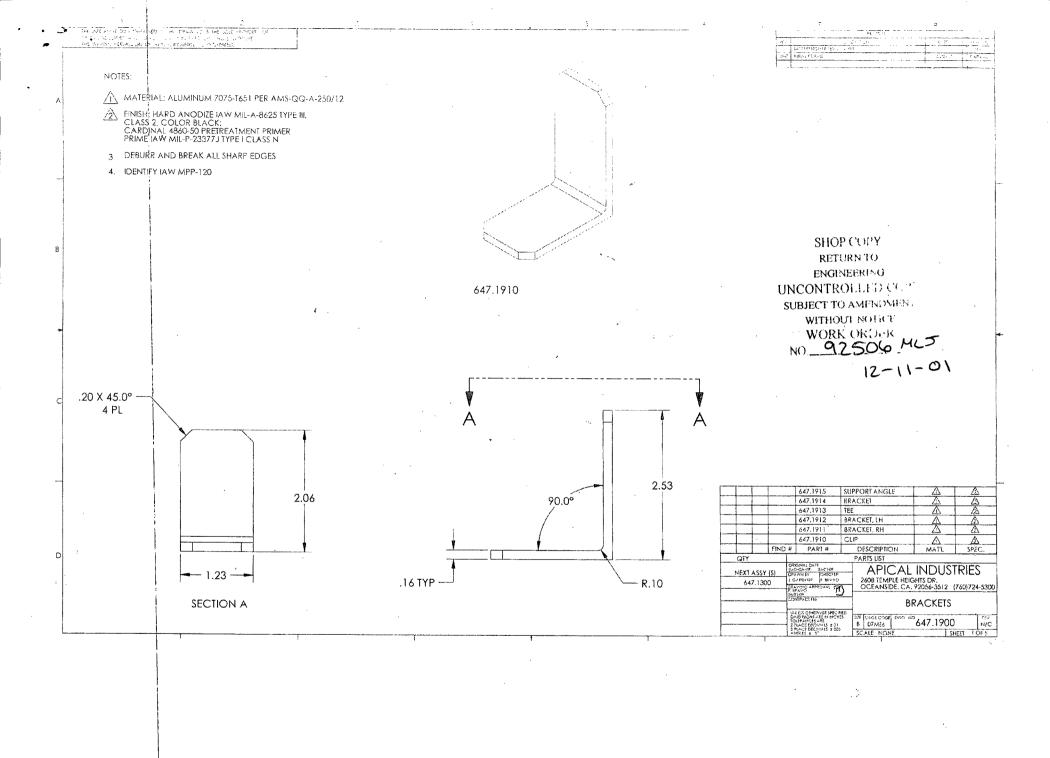
12-12-11

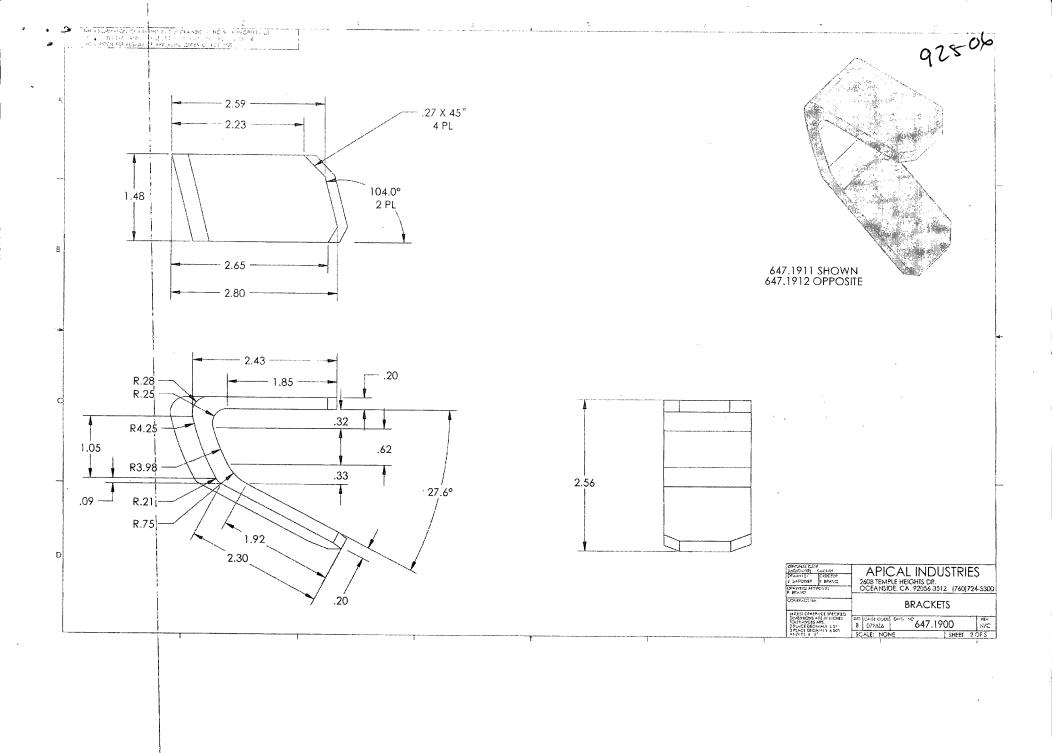
**A** 

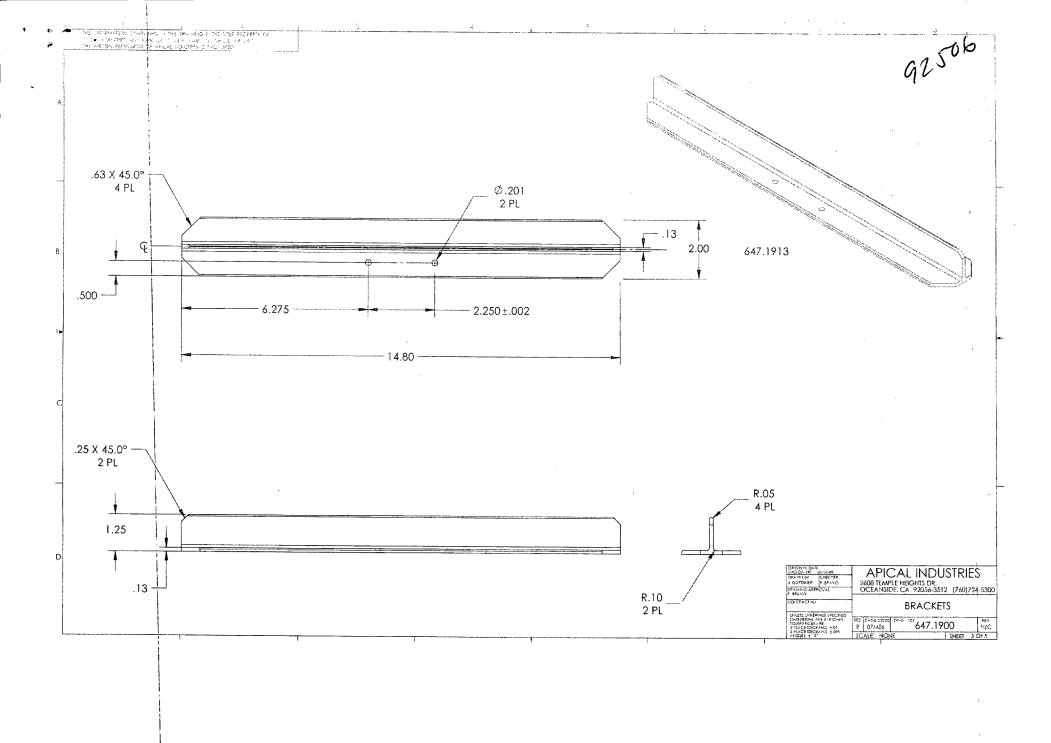
			DQA:	Date:
NCR:	Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE	<del></del>	

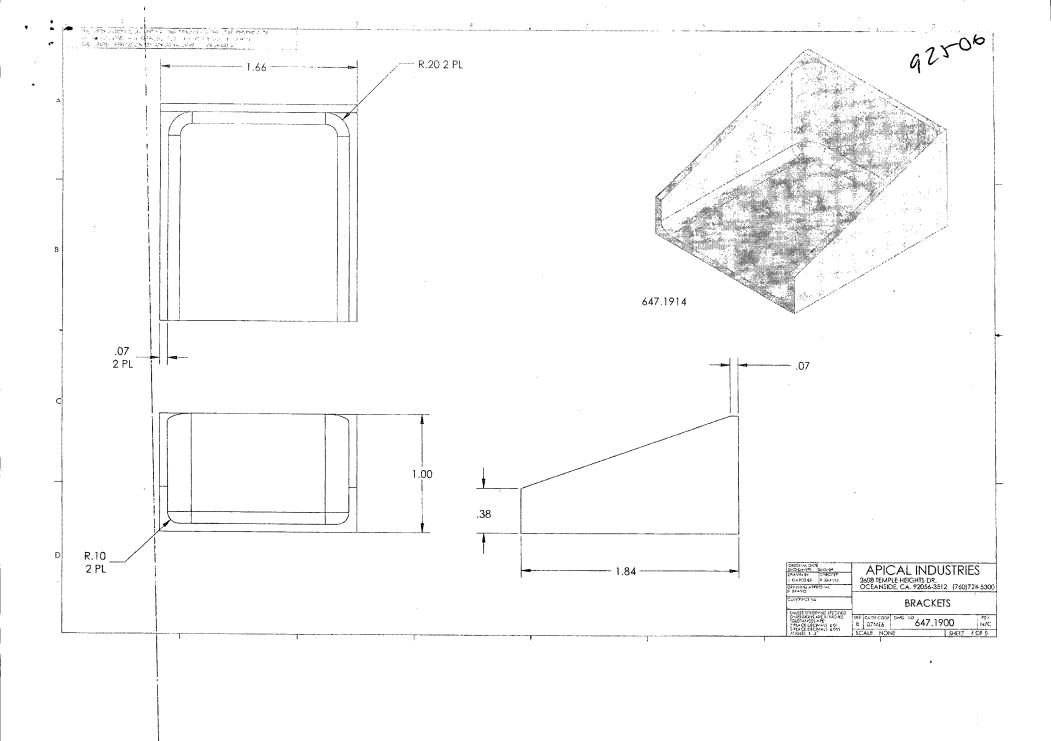
										QA Closed:	Date	2:
Work Order:				DISPOSITION		AGAINST			DEPARTMENT/PROCESS			
Part No				Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing  Large Fab Composite		Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other		
Root		1	Ţ —	Descri	liption of work order update		nitial	Δι	ction	Sign &	··	
Cause	Date	Step	Qty		or Non-conformance	1	ief Eng	i i	cription	. Date	Verification	QC Inspector
Doc/Data	Bate	эсер	Qty		or won comormance	1	ici ciig	Desc	cription	Date	Verification	Qe mspector
Equip/Tooling												
Operator			·									
Material										,		`
Setup		į.							. · · ·			
Other	<del>- </del> -											
Process	-											
Supplier	_					-		·				
Training	$\dashv$	į										
Unapproved												
		ı	ı	L	· F	AUL.	T CATE	GORY		·		
Landii	ng Gear				General							
	Bendin	g			Bend		Grain			Ovalized	Γ	Pressure/Forced
	Centre Not Concentric to O/S			o/s	BOM/Route	П	Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	П	Inspecti	on Incomplete		Part Incorred	ct	Weld
	Crushed/Crimped			Burrs	Instructio		tions Incomplete/Unclear		Part Lost/Missing		Wrong Stock Pulled	
	Cuffs			Contamination	Mainten		enance		Part Moved		1	
	Heat Treat			Countersink	П	Mislabeled			Positioned Wrong			
	Inspection Strip in Tube			Cut Too Short		Misread		Power Loss/Surge O1		Other		
	Ripples	in Bend			Drill Holes		Offset				_	
	Torque	Waves in B	extrusio	n	Drawing		Out of Calibration					
		Sequence			Finish		Out of S	Sequence				
1	Wave/Twist in Tube				Folio		Outside Dimensions					

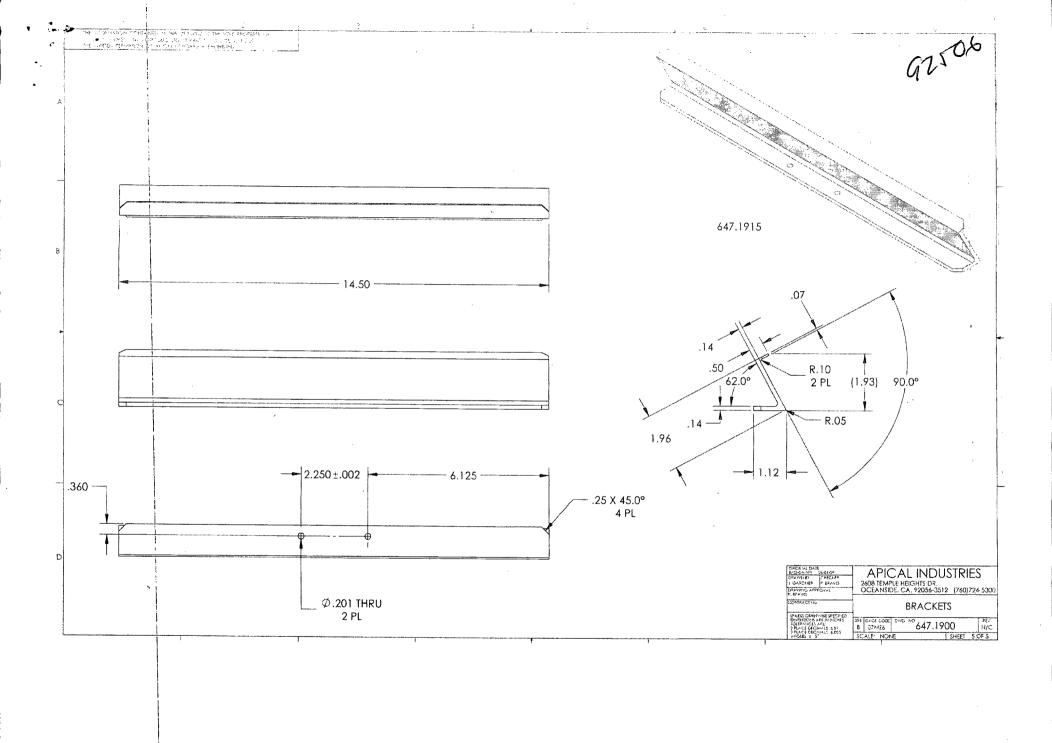
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DART AEROSPACE LTD	Work Order:	92506
Description: CLip	Part Number:	647,1910
-Inspection-Dwg: 647, 1900Rev: NC		- Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.53	£.010	2.536	(		RAZL	Jens
2.06	±.010	2.065			11	
1,23	± .010	1,235			4	
,l b	士.010	,162			vI	
,20×45°	±010/1/20	121×450	-	-	Lf	
			- ,			

Measured by:	Audited by:	ba DAS	Preliminary Approval:	
Date: (2-/2-//	Date:	12/12/12 0-89	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	



A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

## Pack List

Number: 62212

Date: 13-Feb-13

To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada

Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Canada

Ph: 613-632-5000

111. 013-032-32	Fax: 613-632-1185	Р	h: 613-632-5200	Fax: 613-632-1185	
Terms		Ship Via			
Quantity	Description				
1 lot	Part: ASST  4 PCS 647.2010 14 PCS 647.2011 4 PCS 646.9910 4 PCS 647.1813 3 PCS 647.7915 8 PCS 649.4816 170 PCS 646.9910 30 PCS 646.9715 4 PCS 647.7914 14 PCS 647.7914 14 PCS 646.3713 41 PCS 649.4813 4 PCS 647.1910 HARD ANODIZE BLACK	70	Rev:		
	MIL-A-8625 TYPE III CLASS 2 Job: 20130090	PO: PO18829	Line:		
	Certificate of Con  A.T.G. Industries certifies that all items i with all requirements, specifications and ISO 9001 : 2008 REG ATG SALES-2010 TE  DATE :	in this shipment are in drawings referenced in SISTERED	conformance in the purchase order.		